testo 845: IR thermometer, Humidity & Dew Point measurement

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Committing to the future

testo 845

Infrared thermometer with measurement point marking

NEW!

Switchable optics for far field and close focus for optimum measurement point size

°C

%RH

°Ctd

Innovation in non-contact temperature measurement

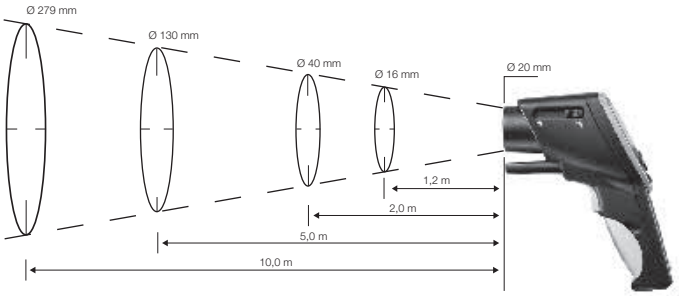
- SWITCH optics for measurement at far distances and close focus
- Assured measurement results with cross laser marking showing the true measurement area
- Measuring range –35 °C to +950 °C
- Reference accuracy up to +/- 0.75 °C with ultra-fast measurement technology (Scanning 100 ms)
- Integrated humidity module for measuring indoor air humidity and determining the dewpoint distance and the surface humidity
- Probe input for thermocouple probes
- Documentation via software or on site with a report printer

Small measurement point at small and large distances from the measurement surface with SWITCH optics

The testo 845 is a milestone in non-contact temperature measurement. For the first time, surface temperatures with a measurement point diameter of up to 1mm can be measured. A small measurement point is guaranteed even at large distances from the measurement surface. The switchable optics for far-field and close focus measurement make it possible.

1 75:1 Far-field optics with cross laser for large distances:

For measurements at greater distances, the testo 845 is equipped with 75:1 optics.
In measurements, the reliability of the measurement result is foremost. A laser cross marks the actual measurement point exactly at any distance. This ensures that the diameter of the measurement point is recognizable at all times during measurement - incorrect measurements are eliminated.



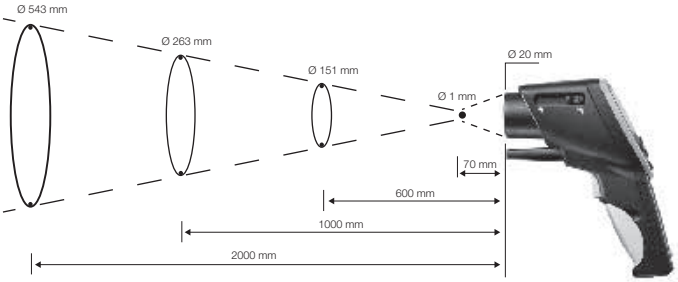
Measurement point diameter and distance from the measurement surface

Switching:

The optics are switched from far-field to close focus with the slide switch.

2 Close focus optics with 1 mm measurement point for small distances

With the close focus optics, surface temperatures with a measurement point diameter up to 1 mm can be measured. A 2-point laser marks the focus of the measurement point exactly.



Measurement point diameter and distance from the measurement surface

testo 845 – the fast and accurate way to measure temperature without contact

The infrared thermometer testo 845 proves itself through the speed of its temperature measurement. Min./max. values and limit value exceedances are updated at a time interval of 100 ms. This enables surfaces to be quickly scanned and evaluated.

The testo 845 guarantees a high level of accuracy in non-contact temperature measurement. In the temperature range from -35 to +950 °C, a measurement accuracy of up to +/- 0.75 °C is achieved.

An input for externally attachable temperature probes is used for measuring temperatures when the degree of emission is not known. The degree of emission is freely adjustable from 0.1 to 1.0 in the testo 845.

More than temperature measurement – testo 845 with built-in humidity measurement

For the measurement of ambient conditions, the ambient air humidity (%RH), the ambient temperature and the the dewpoint (°Ctd) can be measured with the humidity module.

The testo 845 is particularly suited for the fast localization of damp walls and ceilings where there is danger of mould. The danger of mould growth exists if the dewpoint distance is < 4 °Ctd or if the surface moisture reaches values > 0.8 (corresponds to 80 % relative humidity). The testo 845 automatically calculates the dewpoint distance and the surface moisture. If high or low limit values are exceeded (freely defined by the user), an audible alarm sounds. Critical points in domestic areas can thus be localized quickly with the testo 845.

The humidity module can be directly ordered as a set with the testo 845 or retrofitted at a later time.

Simple instrument operation with a clear display

- 3-line backlit display showing °C, min./max. values of the alarm limit values (freely settable) and of the degree of emission
- Additional display of relative humidity (%RH), dewpoint (°Ctd) and dewpoint distance when the humidity module is attached
- Optical and audible alarm when limit values are exceeded (limit values can be freely set)
- Instrument store for 90 measurement protocols

Display view infrared measurement: current value, min./max.value

Display view with attached °C contact probe: degree of emission, current value °C infrared measurement and °C contact probe

Display view with integrated humidity module: current value %RH, °C and °Ctd of the humidity module

Assurance through documentation

A

PC software for archiving and documenting measurement data

The stored measurement protocols (max. 90) are read into the PC software via USB cable. The convenient PC software is used to archive, document and further process the measurement data (e.g. Excel, Visual Basic)

Online measurements are also possible with the testo 845 and the PC software. A bracket allows the testo 845 to be securely fitted into the tripod during measurent. Data transfer from the instrument to the PC takes place in a time interval from 100ms. Voltage supply during online measurement takes place via USB or battery.

PC software, USB cable and tripod are included in delivery as standard

B

Documentation on site with the testo report printer

The testo 845 transfers the data wirelessly to the report printer via infrared interface. Date and time are documented on the printout in addition to the measurement values.

Technical data and ordering data

testo 845	
Measuring range °C:	IR °C: -35 to+950 °C Humidity mod.: 0 to 100 %RH 0 to +50 °C -20 to +50 °C td Contact °C -35 to +950 °C
Spectral range:	8 to 14 m
Accuracy °C IR (at +23 °C): ± 1 digit:	±2.5 °C (-35 to -20.1 °C) ±1.5 °C (-20 to +19.9 °C) ±0.75 °C (+20 to +99.9 °C) ±0.75 % of m.v. (+100 to +950 °C)
Accuracy °C contact (Type K): ± 1 digit:	±0.75 °C (-35 to +75 °C) ±1 % of m.v. (75.1 to +950 °C)
Accuracy humidity module: ± 1 digit:	±2 % RH (2 to 98 %RH) ±0.5 °C (+10 to +40 °C) ±1 °C (remaining range)
Resolution:	0.1 °C (°C-measurement parameters) 0.1 % RH (humidity) 0.1 °Ctd (dewpoint)
Emission factor:	Adjustable 0.1 to 1.0
Optical resolution:	Far field: 75:1 (16 mm, distance 1200 mm) Close focus: 1 mm, distance 70 mm
Measuring rate:	t 95: 150 ms Scanning Max/Min/Alarm: 100 ms
Housing material:	ABS black/grey, metal cover
Dimensions testo 845:	155 x 58 x 195 mm (LWH)
Weight testo 845:	465 g
Dimensions case (included in delivery)	405 x 340 x 93 mm (LWH)
Voltage supply:	2 x AA AlMn or via USB
Battery life:	25h (without laser); 10h (with laser without backlight); 5h (with laser and 50% backlight)
Operating temperature:	-20 to +50 °C
Storage temperature:	-40 to +70 °C
Warranty:	2 years

testo 845	Part no.
testo 845, infrared temperature measuring instrument with cross laser marking, switchable optics for far field and close focus measurement, contact temperature probes attachable, optical/audible alarm, measurement value memory, carrying strap, PC software incl. USB-data transfer cable, aluminium case, battery and calibration protocol	0563 8450
testo 845, infrared temperature measuring instrument with cross laser marking incl. humidity module, switchable optics for far field and close focus measurement, contact temperature probes attachable, optical/audible alarm, measurement value memory, carrying strap, PC software incl. USB-data transfer cable, aluminium case, battery and calibration protocol	0563 8451

Accessories for measuring instrument	Part no.
Humidity module retrofittable for testo 845	0636 9784
Mains unit, 5 VDC 500 mA with European plug	0554 0447
External charger incl. 4 Ni-MH rechargeable batteries with integrated international plug –100-240 V, 300 mA, 50/60 Hz, 12 VA/instrument	0554 0610
Temperature probes (TE Type K)	
Very fast reaction surface probe with sprung thermocouple band, also for uneven surfaces, measuring range short-term up to +500°C, TC Type K	0602 0393
Very fast reaction surface probe with sprung thermocouple band, bent, also for uneven surfaces, measuring range short-term up to +500°C, TC Type K	0602 0993
Precise, waterproof surface probe with small measuring head for flat surfaces, TC Type K	0602 0393
Robust air probe, TC Type K	0602 1793
Accessories	
Testo report printer with wireless IRDA and infrared printer, 1 roll of thermal paper and 4 AA batteries	0554 0547
Spare thermal paper for printer (6 rolls)	0554 0569
Spare thermal paper for printer (6 rolls), long-term legible measurement up to 10 years	0554 0568
Control and humidity calibration set 11.3 %RH / 75.3 %RH	0554 0660
Adhesive tape for polished surfaces (roll, L.: 10 m, W.: 25 mm), E=0.93, temperature-proof bis +300 °C	0554 0051
Silicone heat paste (14g), Tmax = +260 °C, for improving heat transfer in surface probes	0554 0004
Calibration certificates	
ISO calibration certificate temperature, infrared thermometer, calibration points +60 °C,+120 °C,+180 °C	0520 0002
ISO calibration certificate temperature, infrared measuring instruments, calibration points -18 °C, 0 °C, +60 °C	0520 0401

Subject to change without notice

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